

Official

David Straayer, et al.
Application No.: 09/523,407
Page 2

12-21-01 T

PATENT

a stick control for operation by the user;
a sensor surface having X and Y electrical signal values at various contact positions on said sensor surface;
a contact surface on which the sensor surface may or may not be in contact;

a contact actuated by the user through the stick control for movement between contact positions along the sensor surface;

the stick control having a central pointing position at which the user expects there to be no cursor movement, and having at this central pointing position X and Y electrical signal values, the stick control having positions displaced from the central pointing position to cause the cursor to move in a direction corresponding to the direction of the displacement, and at a speed corresponding to the magnitude of the displacement;

the sensor surface and contact outputting a pair of X and Y electrical signal values with respect to the position of the contact on the sensor plane, the process of auto calibration of the relative pointing device comprising the steps of:

making contact between the contact surface and the sensor surface;
determining Xcenter and Ycenter values by recording the X and Y electrical signal values at the point in time when the contact is first established;

determining the current X and Y electrical signal values with respect to the position of the contact on the sensor plane at a subsequent time; and,

calibrating the relative pointing device at the subsequent time by subtracting the recorded Xcenter and Ycenter values from the current X and Y electrical signal values.

2.
6. (New) The method for performing auto calibration in a relative pointing device for a computer user interface according to claim 5 and including the further steps of:

providing a dome switch underlying the sensor plane;

15

David Straayer, et al.
Application No.: 09/523,407
Page 3

PATENT

determining the Xcenter and Ycenter values by recording the X and Y values at the point in time when the contact is first established, and then using these values as the Xcenter and Ycenter values if and only if closure of the dome switch occurs within a predetermined interval of time of the contact engaging the sensor plane; and, not adopting the Xcenter and Ycenter values upon closure of the dome switch beyond the predetermined interval of time.

*A1
cont'd.*
3. (New) The method for performing auto calibration in a relative pointing device for a computer user interface according to claim 5 and including the further steps of:

providing a central contact switch on the contact surface to interact with the sensor surface when the pointer is in the central pointing position for providing no cursor movement; and,

determining the Xcenter and Ycenter values by recording the X and Y values at the point in time when the contact is first established, and then using these values as the Xcenter and Ycenter values if and only if the central contact switch was in contact.

4. (New) The method for performing auto calibration in a relative pointing device for a computer user interface according to claim 5 and including the further steps of:

averaging a plurality of calibrating steps to determine the position of the relative pointing device for providing no pointing bias to the computer interface.

REMARKS

This Amendment is responsive to the Office Action of the Examiner mailed Jun. 25, 2001. A request for three-month extension of time accompanies this Amendment.

Claims 1 to 3 have been rejected under 35 USC 102 (a) has been